

Environmental Protection

California Regional Water Quality Control Board

Lahontan Region

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MEMORANDUM

TO:

George V. Alexeeff, Ph.D., D.A.B.T.

Acting Director

Office of Environmental Health Hazard Assessment

P.O. Box 4010

Sacramento, CA 95812-4010

FROM:

Harold J. Singer

Executive Officer

LAHONTAN REGIONAL WATER QUALITY CONTROL BOARD

DATE:

July 19, 2011

SUBJECT:

REQUEST FOR POSITION OF OFFICE OF ENVIRONMENTAL HEALTH HAZARD ASSESSMENT ON USE OF PROPOSED PUBLIC HEALTH GOAL FOR HEXAVALENT CHROMIUM AS BASIS FOR REPLACEMENT WATER

ORDER

Some private domestic wells in the town of Hinkley, CA contain detectable levels of hexavalent chromium. Water from these wells has been and continues to be used for consumption, bathing and as supply water for swamp coolers, among other uses. Residents in the area are concerned over the levels of hexavalent chromium in light of the recently proposed public health goal (PHG) of 0.02 parts per billion (ppb).

The California Regional Water Quality Control Board, Lahontan Region, (Water Board) has the authority to require cleanup of waste discharges that have affected the quality of waters of the State. The Water Board is exercising its authority in the Hinkley area in response to a release of hexavalent chromium to groundwater by Pacific Gas and Electric. One aspect of the Water Board's authority is its ability to require dischargers of waste to provide replacement water when the discharge has adversely affected a municipal or domestic use.

The Water Board Prosecution Team (subset of staff) has proposed that the Water Board adopt an order (Attachment 1) requiring Pacific Gas and Electric to provide replacement water to properties where the hexavalent chromium concentrations in domestic well water exceeds the draft PHG (when it can be demonstrated that the hexavalent chromium was due to the release from Pacific Gas and Electric). The Water Board has received a number of comments on the proposed order, some of which state that it would be inappropriate for the Water Board to use of the proposed PHG to establish a basis for providing replacement water. One such comment was submitted by the California Department of Public Health (Attachment 2).

California Environmental Protection Agency



While the Water Board has ample authority to require replacement water where appropriate to protect the public health, it is hampered by the lack of an adopted standard specifically for hexavalent chromium. The only adopted standard is a CA Maximum Contaminant Level for total chromium of 50 ppb (which includes hexavalent chromium). In precedential orders issued by the State Water Resources Control Board, the regional water boards are directed to use the best available information and to defer to agencies such as the CA Department of Public Health and the Office of Health Hazard Assessment (OEHHA) when citing levels intended to protect public health.

In order to assist the Water Board in determining whether to issue the order as proposed by the Water Board Prosecution Team or with modifications, I am requesting that OEHHA provide responses to the following questions:

- 1. When is OEHHA scheduled to adopt the proposed PHG for hexavalent chromium?
- 2. What is OEHHA's position on the applicability of the proposed PHG as a value that would be protective of public health related to potential exposure of residents in Hinkley? If OEHHA's response it that use of the PHG is not applicable, please indicate if the current CA MCL is protective of public health and should be the standard that is used as the basis for providing replacement water. If neither the proposed PHG nor the CA MCL are the appropriate values to use, what would be an appropriate value that would be protective of public health?
- 3. What is OEHHA's position on the comments by Dr. Joshua W. Hamilton Ph.D. (Attachment 3) on the scientific basis for the development of the PHG by OEHHA, specifically points 8 10 and 12?
- 4. What is OEHHA's position on the validity of footnote No. 5 in Attachment 3?
- 5. What is OEHHA's position on Dr. Hamilton's conclusion that swamp coolers do not pose an inhalation risk? If OEHHA believes that Dr. Hamilton's conclusions are not supported by the available information (including but not necessarily limited to the references cited), does OEHHA believe that swamp coolers could pose a risk, and if so, at what hexavalent level? If OEHHA believes that the available information is insufficient to reach a conclusion, would OEHHA be willing to perform an evaluation of a typical residence in Hinkley to determine if the use of swamp coolers with water which contains low levels of hexavalent chromium poses a health risk to the residents? This evaluation could be in collaboration with the Agency for Toxic Substances Disease Registry which has done similar studies on other constituents.

I would appreciate a written response to these questions by August 16, 2011.

Please contact me at 530/542-5412 or hsinger@waterboards.ca.gov if you have any questions.

Attachments

- 1. Proposed Cease and Desist Order
- 2. June 27, 2011 letter from the CA Department of Public Health
- 3. Declaration of Dr. Joshua W. Hamilton Ph.D. attached to the July 12, 2011 comments submitted by Pacific Gas and Electric on the Proposed Order

c. all w/out attachments

Water Board members
Lauri Kemper, Assistant Executive Officer, Lahontan Water Board (by e-mail only)
Reed Sato, State Water Resources Control Board, Office of Enforcement (by e-mail only)
Thomas C. Wilson, Director, Environmental Remediation, Pacific Gas and Electric
Drew Page, Office of J. Drew Page
Office of Environmental Health Hazard Assessment (Oakland Office)
Leah Godsey-Walker, Chief, Div. of Drinking Water, CA Dept. of Public Health